

REMARKS

The claims have not been amended. Accordingly, claims 1-18 are currently pending in the application, of which claims 1 and 16 are independent.

Applicants request reconsideration and timely withdrawal of the pending rejections for the reasons discussed below.

Rejections Under 35 U.S.C. § 103

Claims 1-6, 8-10, and 11-18 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Patent No. 6,335,548 issued to Roberts, *et al.* ("Roberts") in view of U.S. Patent No. 6,590,343 issued to Pederson ("Pederson"). Applicants respectfully traverse this rejection for at least the following reasons.

To establish an obviousness rejection under 35 U.S.C. § 103(a), four factual inquiries must be examined. The four factual inquiries include (a) determining the scope and contents of the prior art; (b) ascertaining the differences between the prior art and the claims in issue; (c) resolving the level of ordinary skill in the pertinent art; and (d) evaluating evidence of secondary consideration. *Graham v. John Deere*, 383 U.S. 1, 17-18 (1966).

In view of these four factors, the analysis supporting a rejection under 35 U.S.C. 103(a)

should be made explicit, and should "identify a reason that would have prompted a person of ordinary skill in the relevant field to combine the [prior art] elements" in the manner claimed.

KSR Int'l. Co. v. Teleflex, Inc., 127 S. Ct. 1727, 82 USPQ2d 1385, 1396 (2007). The Federal Circuit requires that "rejections on obviousness cannot be sustained with mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *In re Kahn*, 441 F.3d 977, 988, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006).

Finally, even if the prior art may be combined, there must be a reasonable expectation of success, and the reference or references, when combined, must disclose or suggest every claimed feature. *See in re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Applicants respectfully submit that the rejection of claims 1 and 16-18 must be withdrawn because the Office Action fails to establish a *prima facie* case of obviousness for at least the reasons noted on pages 6-10 of Applicants' Reply dated June 24, 2009.

Despite continued assertions to the contrary, the Office Action can not reasonably rely on Robert's dies 1910 and 1911 to teach the heat sinks of claims 1 and 16. The *Response to Arguments* clarifies that the examiner relies on the cathodes of the dies 1910 and 1911 to teach the heat sinks of claims 1 and 16 (Office Action, page 12). This rationale, however, is fatally flawed. Applicants understand that claim terms are given their broadest reasonable interpretation during prosecution. That interpretation, however, must be consistent with the specification, and it "must also be consistent with the interpretation that those skilled in the art would reach" MPEP § 2111 (emphasis added). A "heat sink" does not include any element that conducts heat, as the Office Action appears to suggest. And a person of ordinary skill in this art would not interpret the term "heat sink" to encompass a cathode of Roberts's dies 1910 and 1911. Equating cathodes of dies with heat sinks merely because the cathodes conduct heat goes far beyond any reasonable meaning of "heat sink." This arbitrary analysis can not possibly support a *prima facie* case of obviousness. Further, these claim rejections can not withstand appeal for this reason alone.

Furthermore, the examiner's cobbling together of contradictory disclosure in Roberts also can not support a *prima facie* case of obviousness. On page 3 of the Office Action, the examiner relies on Roberts's heat extraction member 204 to teach the insulation main body of claim 1, noting that Roberts teaches that heat extraction member 204 may be made of material

such as ceramic (Office Action, page 3). On page 12, however, the Office Action relies on cathodes of Roberts's dies 1910 and 1911 to teach the heat sinks of claim 1, and cites col. 30, lines 1-10 as teaching that electrical contact of each die 1910 and 1911 is made through the base of the die, which is electrically and mechanically bonded to the heat extraction member" (emphasis added). Thus, it is clear that the heat extraction member 204 in Roberts's Fig. 19A can not possibly be made of ceramic. If it were made of ceramic, then the dies 1910 and 1911 could not be electrically bonded to it (see Roberts, col. 29, lines 18-21 & col. 29, line 67 - col. 30, line 4). Hence, the Office Action inappropriately relies on the heat extraction member 204 of Fig. 19A to teach the insulation main body of claims 1 and 16.

Thus, the Office Action fails to establish a *prima facie* case of obviousness of claims 1 and 16 for at least the reasons noted above.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claims 1 and 16. Claims 2-6, 8-10, 11-15, and 17 depend from claim 1 and are allowable at least for this reason. Claim 18 depends from claim 16 and is allowable at least for this reason. Since none of the other prior art of record, whether taken alone or in any combination, discloses or suggests all the features of the claimed invention, Applicants respectfully submit that independent claims 1 and 16, and all the claims that depend therefrom, are allowable.

Claim 7 stands rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over Roberts in view of Pederson. Applicants respectfully traverse this rejection for at least the following reasons.

Applicants respectfully submit that claim 1 is allowable over Roberts and Pederson. Hence, claim 7 is allowable at least because it depends from allowable claim 1.

Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 103(a) rejection of claim 7.

CONCLUSION

Applicants believe that a full and complete response has been made to the pending Office Action and respectfully submit that all of the stated grounds for rejection have been overcome or rendered moot. Accordingly, Applicants respectfully submit that all pending claims are allowable and that the application is in condition for allowance.

Should the Examiner feel that there are any issues outstanding after consideration of this response, the Examiner is invited to contact Applicants' undersigned representative at the number below to expedite prosecution.

Prompt and favorable consideration of this Reply is respectfully requested.

Respectfully submitted,

/hae-chan park/

Hae-Chan Park
Reg. No. 50,114

Date: January 13, 2010

CUSTOMER NUMBER: 58027
H.C. Park & Associates, PLC
8500 Leesburg Pike
Suite 7500
Vienna, VA 22182
Tel: 703-288-5105
Fax: 703-288-5139
HCP/RTS/ebs